In Chung

List of Publications by Citations

67	4,863	29	69
papers	citations	h-index	g-index

88	5,589	11.3	5.77
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
67	All-solid-state dye-sensitized solar cells with high efficiency. *Nature*, **2012**, 485, 486-9	50.4	1392
66	CsSnI3: Semiconductor or metal? High electrical conductivity and strong near-infrared photoluminescence from a single material. High hole mobility and phase-transitions. *Journal of the American Chemical Society*, **2012**, 134, 8579-87	16.4	675
65	Metal Chalcogenides: A Rich Source of Nonlinear Optical Materials. *Chemistry of Materials*, **2014**, 26, 849-869	9.6	463
64	Chalcogenide chemistry in ionic liquids: nonlinear optical wave-mixing properties of the double-cubane compound [Sb7S8Br2](AlCl4)3. *Journal of the American Chemical Society*, **2009**, 131, 9896-7	16.4	221
63	Surface Oxide Removal for Polycrystalline SnSe Reveals Near-Single-Crystal Thermoelectric Performance. *Joule*, **2019**, 3, 719-731	27.8	118
62	Synthesis in ionic liquids: [Bi2Te2Br](AlCl4), a direct gap semiconductor with a cationic framework. *Journal of the American Chemical Society*, **2010**, 132, 14760-2	16.4	110
61	Helical polymer 1/infinity[P2Se6(2-)]: strong second harmonic generation response and phase-change properties of its K and Rb salts. *Journal of the American Chemical Society*, **2007**, 129, 14996-5006	16.4	103
60	Enhanced thermoelectric properties of p-type nanostructured PbTeMTe (M = Cd, Hg) materials. *Energy and Environmental Science*, **2013**, 6, 1529	35.4	101
59	New Metal Chalcogenides Ba4CuGa5Q12 (Q = S, Se) Displaying Strong Infrared Nonlinear Optical Response. *Chemistry of Materials*, **2013**, 25, 2427-2433	9.6	97
58	A Polar and Chiral Indium Telluride Featuring Supertetrahedral T2 Clusters and Nonlinear Optical Second Harmonic Generation. *Chemistry of Materials*, **2009**, 21, 12-14	9.6	96
57	Defect Engineering for High-Performance n-Type PbSe Thermoelectrics. *Journal of the American Chemical Society*, **2018**, 140, 9282-9290	16.4	88
56	Flexible polar nanowires of Cs5BiP4Se12 from weak interactions between coordination complexes: strong nonlinear optical second harmonic generation. *Journal of the American Chemical Society*, **2009**, 131, 2647-56	16.4	88
55	Strongly nonlinear optical glass fibers from noncentrosymmetric phase-change chalcogenide materials. *Journal of the American Chemical Society*, **2010**, 132, 384-9	16.4	81
54	Enhancing p-Type Thermoelectric Performances of Polycrystalline SnSe via Tuning Phase Transition Temperature. *Journal of the American Chemical Society*, **2017**, 139, 10887-10896	16.4	79
53	Polycrystalline SnSe with a thermoelectric figure of merit greater than the single crystal. *Nature Materials*, **2021**, 20, 1378-1384	27	79
52	Macromolecular Nanoplatelet of Aurivillius-type Layered Perovskite Oxide, Bi4Ti3O12. *Chemistry of Materials*, **2001**, 13, 2759-2761	9.6	77
51	High-Performance n-Type PbSe-CuSe Thermoelectrics through Conduction Band Engineering and Phonon Softening. *Journal of the American Chemical Society*, **2018**, 140, 15535-15545	16.4	64

50	Extraordinary Off-Stoichiometric Bismuth Telluride for Enhanced n-Type Thermoelectric Power Factor. *Journal of the American Chemical Society*, **2016**, 138, 14458-14468	16.4	63
49	Molecular germanium selenophosphate salts: phase-change properties and strong second harmonic generation. *Journal of the American Chemical Society*, **2012**, 134, 20733-44	16.4	61
48	Na2Ge2Se5: A highly nonlinear optical material. *Journal of Solid State Chemistry*, **2012**, 195, 161-165	3.3	51
47	Air-Stable Direct Bandgap Perovskite Semiconductors: All-Inorganic Tin-Based Heteroleptic Halides AxSnClyIz (A = Cs, Rb). *Chemistry of Materials*, **2018**, 30, 4847-4856	9.6	45
46	First-principles prediction of an enhanced optical second-harmonic susceptibility of low-dimensional alkali-metal chalcogenides. *Physical Review B*, **2009**, 79,	3.3	45
45	APSe6 (A = K, Rb, and Cs): Polymeric selenophosphates with reversible phase-change properties. *Inorganic Chemistry*, **2004**, 43, 2762-4	5.1	45
44	Crystal Growth and Characterization of the X-ray and □ray Detector Material Cs2Hg6S7. *Crystal Growth and Design*, **2012**, 12, 3250-3256	3.5	40
43	Strongly nonlinear optical chalcogenide thin films of APSe6 (A=K, Rb) from spin-coating. *Angewandte Chemie - International Edition*, **2011**, 50, 10867-70	16.4	39
42	High-Power-Density Skutterudite-Based Thermoelectric Modules with Ultralow Contact Resistivity Using Fe□Ni Metallization Layers. *ACS Applied Energy Materials*, **2018**, 1, 1603-1611	6.1	33
41	Low valent phosphorus in the molecular anions [P5Se12]5- and beta-[P6Se12]4-: phase change behavior and near infrared second harmonic generation. *Chemical Communications*, **2007**, 4998-5000	5.8	32
40	Unprecedentedly high indoor performance (efficiency > 34 %) of perovskite photovoltaics with controlled bromine doping. *Nano Energy*, **2020**, 75, 104984	17.1	30
39	Semiconducting [(Bi4Te4Br2)(Al2Cl(6-x)Br(x))]Cl2 and [Bi2Se2Br](AlCl4): cationic chalcogenide frameworks from Lewis acidic ionic liquids. *Inorganic Chemistry*, **2013**, 52, 5657-9	5.1	29
38	High Thermoelectric Performance in n-Type Polycrystalline SnSe via Dual Incorporation of Cl and PbSe and Dense Nanostructures. *ACS Applied Materials & Interfaces*, **2019**, 11, 21645-21654	9.5	27
37	Cu Intercalation and Br Doping to Thermoelectric SnSe2 Lead to Ultrahigh Electron Mobility and Temperature-Independent Power Factor. *Advanced Functional Materials*, **2020**, 30, 1908405	15.6	27
36	Exceptionally High Average Power Factor and Thermoelectric Figure of Merit in n-type PbSe by the Dual Incorporation of Cu and Te. *Journal of the American Chemical Society*, **2020**, 142, 15172-15186	16.4	26
35	[P6Se12]4-: a phosphorus-rich selenophosphate with low-valent P centers. *Inorganic Chemistry*, **2006**, 45, 2785-7	5.1	22
34	Towards efficient and stable perovskite solar cells employing non-hygroscopic F4-TCNQ doped TFB as the hole-transporting material. *Nanoscale*, **2019**, 11, 19586-19594	7.7	22
33	ZnTe Alloying Effect on Enhanced Thermoelectric Properties of p-Type PbTe. *ACS Applied Materials & Interfaces*, **2017**, 9, 3766-3773	9.5	21

32	Ultrahigh Power Factor and Electron Mobility in n-Type BiTe-%Cu Stabilized under Excess Te Condition. *ACS Applied Materials & Interfaces*, **2019**, 11, 30999-31008	9.5	21
31	High-Performance Quantum Dot Thin-Film Transistors with Environmentally Benign Surface Functionalization and Robust Defect Passivation. *ACS Applied Materials & Interfaces*, **2018**, 10, 3739-3749	9.5	20
30	K4GeP4Se12: a case for phase-change nonlinear optical chalcogenide. *Optics Letters*, **2013**, 38, 1316-8	3	20
29	Nanoscale defect structures advancing high performance n-type PbSe thermoelectrics. *Coordination Chemistry Reviews*, **2020**, 421, 213437	23.2	19
28	Rb4Sn5P4Se20: a semimetallic selenophosphate. *Angewandte Chemie - International Edition*, **2011**, 50, 8834-8	16.4	19
27	Neutron Diffraction and X-ray Absorption Spectroscopic Analyses for Lithiated Aurivillius-Type Layered Perovskite Oxide, Li2Bi4Ti3O12. *Journal of Physical Chemistry B*, **2001**, 105, 7908-7912	3.4	17
26	The tellurophosphate K(4)P(8)Te(4): phase-change properties, exfoliation, photoluminescence in solution and nanospheres. *Journal of the American Chemical Society*, **2009**, 131, 16303-12	16.4	15
25	Ag/Ni Metallization Bilayer: A Functional Layer for Highly Efficient Polycrystalline SnSe Thermoelectric Modules. *Journal of Electronic Materials*, **2017**, 46, 848-855	1.9	14
24	Stabilization of Sn2+ in K10Sn3(P2Se6)4 and Cs2SnP2Se6 derived from a basic flux. *Inorganic Chemistry*, **2011**, 50, 412-4	5.1	13
23	Self-emitting blue and red EuOX (X = F, Cl, Br, I) materials: band structure, charge transfer energy, and emission energy. *Physical Chemistry Chemical Physics*, **2019**, 21, 1737-1749	3.6	12
22	[P(3)Se(7)](3-): a phosphorus-rich square-ring selenophosphate. *Inorganic Chemistry*, **2010**, 49, 3092-4	5.1	11
21	Electronic Band Engineering via MI3 (M = Sb, Bi) Doping Remarkably Enhances the Air Stability of Perovskite CsSnI3. *ACS Applied Energy Materials*, **2020**, 3, 10477-10484	6.1	9
20	Unusual n-type thermoelectric properties of Bi2Te3 doped with divalent alkali earth metals. *Journal of Solid State Chemistry*, **2019**, 269, 396-400	3.3	9
19	Cs4P2Se10: A new compound discovered with the application of solid-state and high temperature NMR. *Journal of Solid State Chemistry*, **2007**, 180, 2877-2884	3.3	8
18	Electrical characteristics and detailed interfacial structures of Ag/Ni metallization on polycrystalline thermoelectric SnSe. *Journal of Materials Science and Technology*, **2019**, 35, 711-718	9.1	8
17	Indene-C60 Bisadduct Electron-Transporting Material with the High LUMO Level Enhances Open-Circuit Voltage and Efficiency of Tin-Based Perovskite Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 5581-5588	6.1	7
16	Strongly Nonlinear Optical Chalcogenide Thin Films of APSe6 (A=K, Rb) from Spin-Coating. *Angewandte Chemie*, **2011**, 123, 11059-11062	3.6	7
15	Highly Luminous N-Substituted LiMSiON:Eu (M = Ca, Sr, and Ba) for White NUV Light-Emitting Diodes. *ACS Omega*, **2019**, 4, 8431-8440	3.9	6

List of Publications

14	Study on thermal conductivity and electrical resistivity of Al-Cu alloys obtained by Boltzmann transport equation and first-principles simulation: Semi-empirical approach. *Journal of Alloys and Compounds*, **2017**, 727, 1237-1242	5.7	5
13	Transformation of Dion□acobson-type layered oxyfluorides into new anion-deficient pyrochlore-type oxides, ASrNb2O6.5(A = Li and Na). *Journal of Materials Chemistry*, **2002**, 12, 1001-1004		5
12	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virus-Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3%. *Advanced Energy Materials*, **2021**, 11, 2101221	21.8	5
11	Thermoelectric properties of nano-bulk bismuth telluride prepared with spark plasma sintered nano-plates. *Current Applied Physics*, **2019**, 19, 97-101	2.6	4
10	A Facile and Effective Ozone Exposure Method for Wettability and Energy-Level Tuning of Hole-Transporting Layers in Lead-Free Tin Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2021**, 13, 42935-42943	9.5	4
9	Large-Diameter Carbon Nanotube Transparent Conductor Overcoming Performance□Yield Tradeoff. *Advanced Functional Materials*,2103397	15.6	4
8	Thermoelectric transport properties of Pb doped SnSe alloys (PbxSn1-xSe): DFT-BTE simulations. *Journal of Solid State Chemistry*, **2019**, 270, 413-418	3.3	3
7	Bulk Metamaterials Exhibiting Chemically Tunable Hyperbolic Responses. *Journal of the American Chemical Society*, **2021**,	16.4	2
6	Exceptionally low thermal conductivity realized in the chalcopyrite CuFeS2 via atomic-level lattice engineering. *Nano Energy*, **2022**, 94, 106941	17.1	2
5	A highly efficient and transparent luminescent solar concentrator based on a nanosized metal cluster luminophore anchored on polymers. *Journal of Materials Chemistry C*, **2022**, 10, 4402-4410	7.1	2
4	Rb4Sn5P4Se20: A Semimetallic Selenophosphate. *Angewandte Chemie*, **2011**, 123, 8996-9000	3.6	1
3	First-principles study of electronic transport coefficients of point-defective metallic species: aluminum and its bimetallic alloys. *Modelling and Simulation in Materials Science and Engineering*, **2019**, 27, 035009	2	
2	r-BN: A fine hyperbolic dispersion modulator for bulk metamaterials consisting of heterostructured nanohybrids of h-BN and graphene. *Journal of Solid State Chemistry*, **2022**, 309, 122937	3.3	
1	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virus-Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3% (Adv. Energy Mater. 38/2021). *Advanced Energy Materials*, **2021**, 11, 2170150	21.8	